

***AN ARCHAEOLOGICAL SURVEY FOR THE
RIVERBEND MIDSTREAM PARTNERS, LP
NECHES RIVER CROSSING PROJECT
IN JASPER AND TYLER COUNTIES TEXAS***



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***Brazos Valley Research Associates
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RIVERBEND MIDSTREAM PARTNERS, LP NECHES RIVER
CROSSING PROJECT IN
JASPER AND TYLER COUNTIES, TEXAS

BVRA Project Number 10-11

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ABSTRACT

RiverBend Midstream Partners, LP (client) proposes to install a natural gas pipeline that will pass beneath the Neches River in western Jasper and eastern Tyler counties, Texas. Brazos Valley Research Associates (BVRA) and Dixie Environmental Services Co., LP (DESCO) were retained by the client to conduct an archaeological survey in order to identify the presence of significant cultural resources in the project area. The survey was conducted on two separate days. On April 23, 2010, Phil Bishop visited the project area, and J. Philip Washington joined him on April 27, 2010. The areas investigated are located in upland settings away from the sandy banks and natural levee of the river. The survey crew investigated the area through a surface inspection, shovel testing, and a bucket auger. No archaeological sites were found, and it is recommended that construction be allowed to proceed as planned. The area investigated consisted of 3.8 acres. The project area is on lands under the jurisdiction of the United States Army Corps of Engineers, Galveston District.

CONTENTS

ABSTRACT	ii
DEFINITION OF STUDY AREA.....	1
MANAGEMENT SUMMARY	4
METHODS.....	5
RESULTS	7
RECOMMENDATIONS	9

Appendix I: Shovel Test Log

FIGURES

Figure 1. General Location	2
Figure 2. Project Area on Topographic Quadrangle.....	3
Figure 3. Location of Shovel Tests	6

DEFINITION OF STUDY AREA

The project area consists of the route of a proposed pipeline that will pass beneath the Neches River in Jasper and Tyler counties, Texas (Figure 1). This is part of a larger project that will connect production from producing natural gas wells in Jasper County to existing production facilities in Tyler County. The construction at the river crossing will involve the installation of two pipelines placed parallel to each other. One will be used for transporting the natural gas to the production facility, and the other is an alternate route that can be used if there is a problem with the location of the primary route. The pipelines will be bored under the Neches River using directional boring from an upland location to an upland location in accordance with Regional General Permit SWG-1998-02413. The decision to bore beneath the river was made as a way of saving money and to avoid disturbing environmentally sensitive areas such as jurisdictional wetlands and cultural resources. The two pipes are 12.750 inches in diameter. The areas investigated are 1590 feet on the north side of the road and 1760 feet on the south side of the road. The easement on both sides of the road is fifty feet. At the time of this survey, the final route of the river crossing had not been established. Therefore, the north and south sides of Farm-to-Market Road 1013 were examined. The final configuration is that the pipeline river crossing will be placed adjacent to the north side of the road. To accomplish this, the pipeline will be bored beneath the road from the south side to the north side. At this point, boring will start about 430 feet from the river bank on the east side of the Neches River and exit approximately 941 feet from the opposite bank. A second bore will be placed beneath the highway to the north side of the road and exit on the south side, and the pipeline will continue to the west on the south side.

According to the online soil survey for Jasper and Newton counties, the soil on the east side of the river in Jasper County consists of Urbo and Mantachie soils, frequently flooded (Um). These soils are found at elevations of 20 to 200 feet and are found on flood plains and mounds. The parent material of these soils consists of loamy and clayey alluvium, and the depth to the water table is about 12 to 24 inches for Urbo soils and 12 to 18 inches for Mantachie soils. Both soils are somewhat poorly drained and the frequency of flooding is "frequent." In a typical profile, clay is found at the surface and continues to 65 inches. According to the online soil survey for Tyler County, the soil on the west side of the river in Tyler County consists of Lulus-Bleakwood complex, 0 to 1 percent slopes, frequently flooded (IbA). These soils are found at elevations of 20 to 300 feet and are found on flood plains. Micro-features of landform position are bars for both soils. The parent material of these soils consists of loamy alluvium of Holocene age, and the depth to the water table is about 18 to 48 inches for Lulus soils and 0 to 18 inches for Bleakwood soils. Lulus soils are somewhat poorly drained, and Bleakwood soils are poorly drained. The frequency of flooding is described as "frequent" for both soils. In a typical profile, the upper strata consist of fine sandy loam and loam from the surface to 80 inches. The project area is depicted on the Magnolia Springs USGS 7.5' topographic quadrangle (3094-414) (Figure 2).

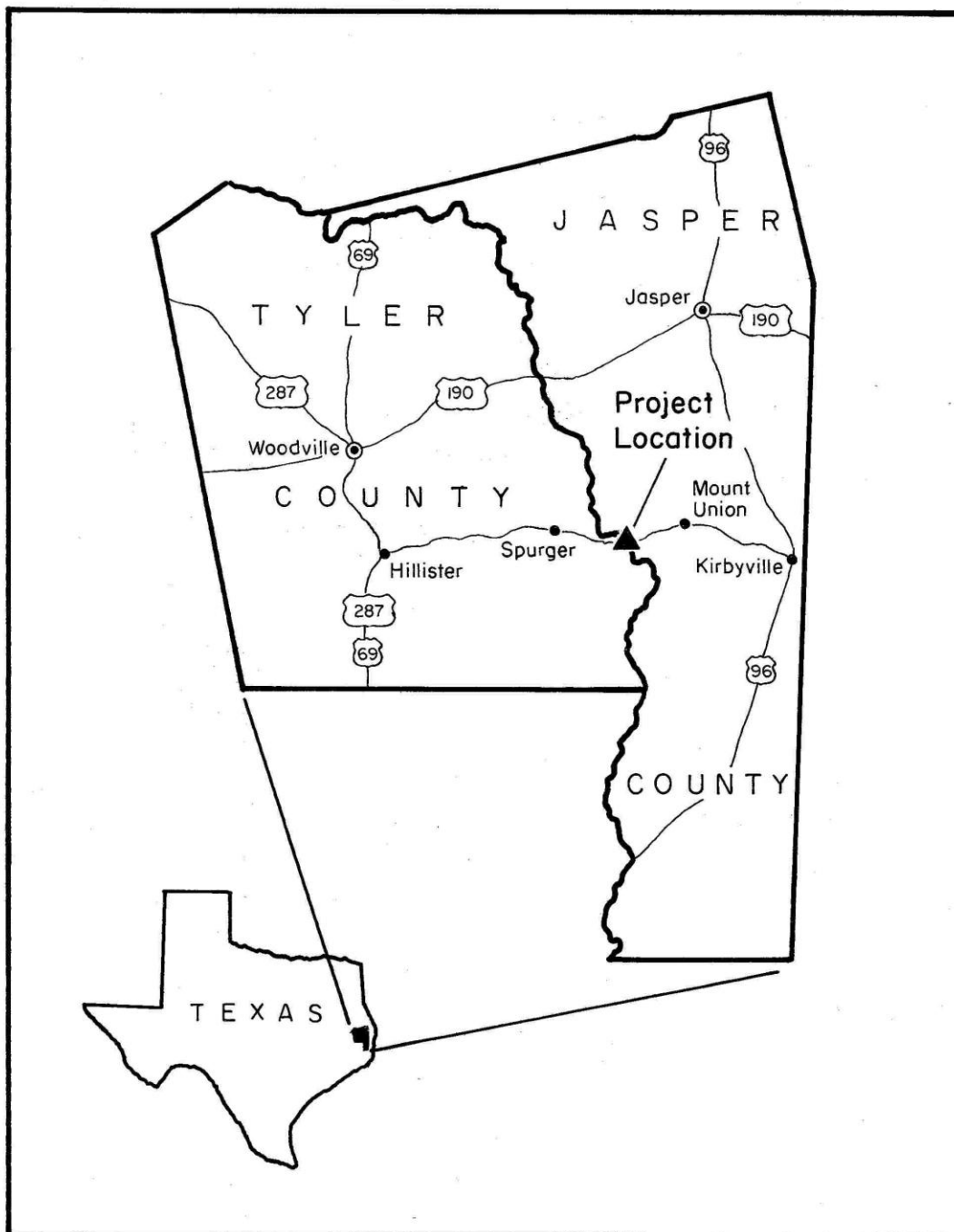


Figure 1. General Location

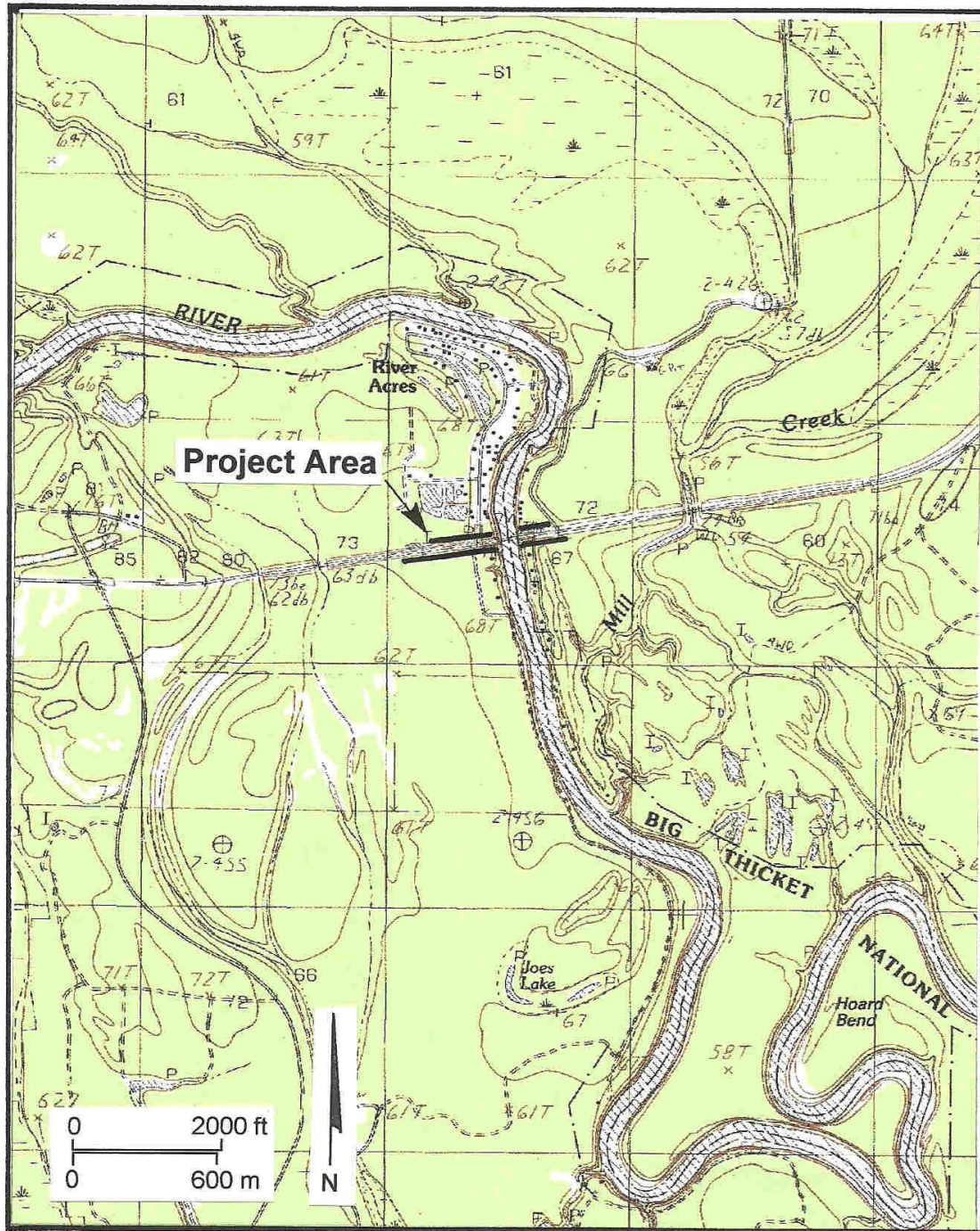


Figure 2. Project Area on Topographic Quadrangle

MANAGEMENT SUMMARY

This project was performed in order to assess the potential for significant cultural resources within the APE, and it was coordinated by BVRA and DESCO. Phil Bishop and J. Philip Washington conducted the field survey. Phil Bishop worked alone on April 23, 2010, and Bishop and Washington worked together on April 27, 2010. In all, 24 person hours were expended.

METHODS

Prior to entering the field, the Texas Archeological Sites Atlas and the site files and maps at the Texas Archeological Research Laboratory were checked for the presence of previously recorded sites and archaeological projects in the current project area and vicinity. Relevant archaeological reports documenting work in the area were reviewed in order to become familiar with the types of prehistoric and historic sites found in the area. The current project area was investigated by two archaeologists (Phil Bishop and J. Philip Washington). A surface inspection was conducted, and the subsurface was examined by shovel testing. In all, 17 shovel tests were excavated. Eight shovel tests were dug on the north side of the road, and nine shovel tests were dug on the south side of the road (Figure 3). When it was not possible to reach clay with a shovel, a bucket auger was used to finish the test. All soil removed through shovel testing was screened using ¼ inch hardware cloth. Information regarding the depth and soil type for each test appears on a shovel test log (Appendix I). The soil removed from the tests dug with the auger was screened. The project was documented through field notes, a digital camera, and hand-held GPS.

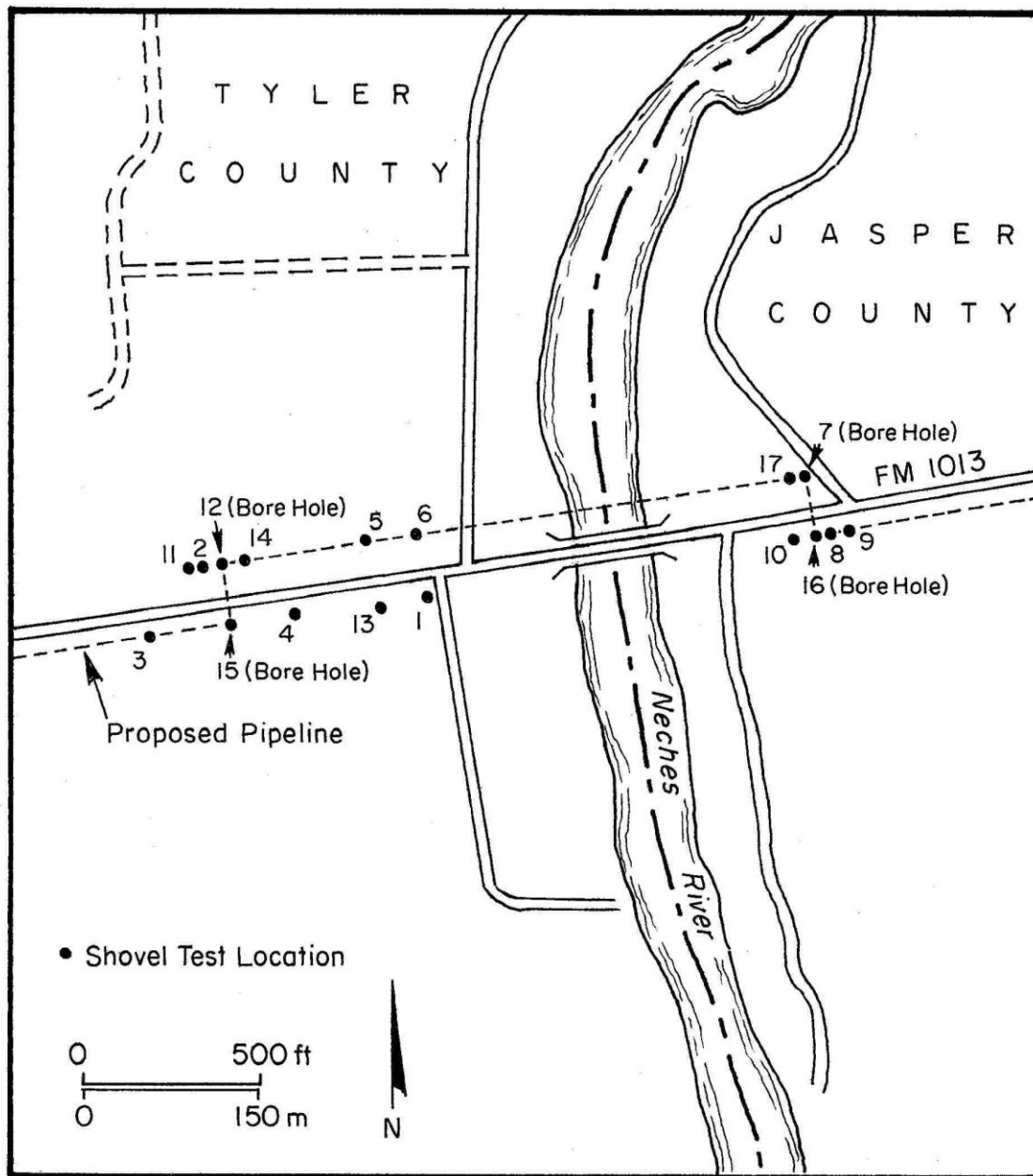


Figure 3. Location of Shovel Tests

RESULTS

Archival Research

Examination of the files at the Texas Archeological Research Laboratory in Austin, Texas and the Texas Archeological Sites Atlas revealed no previously recorded archaeological sites in the project area. Also, there is no evidence that the current project area had been examined by professional archaeologists. Several archaeological investigations have been conducted that resulted in the identification and recording of prehistoric and historic sites in the general area. In Jasper County, there are four sites located to the north and east. Site 41JP141 is located on the east bank of the river about 300 meters to the north of the bridge at Farm-to-Market Road 1013, and it was recorded in 1975 as the Sheffield Ferry. In 1985, Paul D. Woods filed a site form for 41JP141 as a prehistoric site containing Paleo-Indian artifacts collected from the surface by D. T. Kent. Site 41JP45 was recorded by W. A. Davis in 1960 as being on an artificial terrace edge produced when earth was removed to construct the bridge over Mill Creek. Site 41JP62 was recorded by Edward P. Baxter in 1975 during a survey of the Big Thicket for the National Park Service. These sites are approximately 620 meters to the east and northeast of the Neches River. They are described as lithic scatters, and they are areas where Andy Kyle made extensive collections as early as the 1940s. The fourth site is 41JP158. It was recorded in 2000 as an unknown prehistoric site on a high ridge about 1200 meters east of the Neches River. It is located on the south side of Farm-to-Market Road 1013 and near Mill Creek. This site dates to the Late Prehistoric period based on the presence of ceramics and arrow points and is described on the site form as mostly intact. In Tyler County, there are two sites that are in the general area. Site 41TL31 is one of the many sites that were collected from by Andy Kyle. It is located on a flat-topped ridge approximately 2600 meters to the west of the project area. It is described on the site form as an unknown prehistoric site due to an absence of known diagnostic artifacts. About 460 meters to the north of Farm-to-Market Road 1013, is site 41TL72. It was recorded by Moore Archeological Consulting in 1999 as the Fred Jenkins house associated with the Sheffield Ferry (41JP141) during an inventory of the Big Thicket.

Field Survey

On the south side of Farm-to-Market Road 1013, four shovel tests were excavated on the east side of the river. From east to west, they encountered silty loam over clay at 35 cm (ST 9), wet silt over clay at 50 cm (ST 8), compact sandy silt over clay at 140 cm (ST 16), and sandy clay over clay at 20 cm (ST 10). On the west side of the river (and on the south side of the road), five shovel tests were excavated. From east to west, the following soils were encountered. Deep sand to 100 cm at ST 1, sandy silt over clay at 144 cm at ST 13, mottled sandy clay over clay at 20 cm at ST 4, wet silty clay over clay at 30 cm at ST 15, and sandy clay over clay at 20 cm at ST 3.

On the north side of Farm-to-Market Road 1013, two shovel tests were excavated on the east side of the river. From east to west, these tests encountered clay at 20 cm (ST 7) and silt over clay at 80 cm (ST 17). On the west side of the river six shovel tests were excavated. From east to west, they encountered mottled sandy clay over clay at 80 cm (ST 6), mottled sandy clay over clay at 85 cm (ST 5), silty clay over clay at 75 cm (ST 14), sandy clay over clay at 20 cm (ST 12), sandy clay over clay at 40 cm (ST 2), and sandy clay over clay at 20 cm (ST 11).

No evidence of a prehistoric or historic site was found in either of the two potential routes. Those prehistoric sites recorded in the area by previous researchers are located on prominent landforms containing sandy soil. Although the two pipeline routes are in upland settings, the bore entry holes and exit holes are not close to the river. The rest of the project area is located on relatively flat terrain with little sandy soil. Historic sites can be found anywhere on the landscape, but no evidence of historic utilization of the area was observed on the surface or below the surface.

Evidence of disturbance was found in several areas of the two proposed Neches river crossings. For example, disturbance was noted to the north and south of Shovel Test 16, a ditch was present in the area of Shovel Test 17, and Shovel Test 2 was dug in the right-of-way of Farm-to-Market Road 1013.

RECOMMENDATIONS

No evidence of a prehistoric or historic site was found as a result of this assessment. It is recommended that the client be allowed to proceed with construction as planned. Should evidence of an archaeological site be encountered during installation of pipelines at any of the areas investigated, all work must stop until the THC can evaluate the situation.

Appendix I: Shovel Test Log

Shovel Test	Depth	Date	Comments
1	100	04/23/10	sand (0-100 cm)
2	40	04/23/10	sandy clay (0-40 cm) - clay at 40 cm
3	40	04/23/10	mottled sandy clay (0-20 cm) - clay at 20 cm
4	30	04/23/10	mottled sandy clay (0-20 cm) - clay at 20 cm
5	85	04/23/10	mottled sandy clay (0-85 cm) - clay at 85 cm
6	80	04/23/10	mottled sandy clay (0-80 cm) - clay at 80 cm)
7	20	04/23/10	clay 0-20 cm (shovel test dug in disturbed ditch)
8	50	04/23/10	low wet silt (0-50 cm) - clay at 50 cm
9	45	04/23/10	compact silty loam (0-35 cm) - clay at 35 cm
10	80	04/23/10	compact sandy silt (0-80 cm) - clay at 80 cm pushpiles on terrece
11	30	04/23/10	mottled wet sandy clay (0-20 cm) - clay at 20 cm
12	30	04/23/10	mottled wet sandy clay (0-20 cm) - clay at 20 cm
13	150	04/27/10	sandy silty clay (0-144 cm) - clay at 144 cm
14	75	04/27/10	sandy silty clay (0-75 cm) - clay at 75 cm
15	30	04/27/10	bottomland wet silty clay (0-30 cm) - clay at 30 cm
16	140	04/27/10	gray compact sandy silty (0-140 cm) - clay at 140 cm
17	80	04/27/10	sandy clay (0-80 cm) - clay at 80 cm